

How Google Can Help Rebuild L'Aquila



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The damaged bell tower of the 16th-century San Bernardino Church.

By BARNABY GUNNING

L'Aquila, Italy

Twice last year, the world's media focused on this historic city: the first time, following the devastating earthquake that hit early in the morning on April 6, 2009, and again three months later when the Italian Prime Minister chose L'Aquila to host the G-8 summit. The media attention was intense, but fleeting. As with all such calamities, the real extent of the damage caused a year ago is far greater than that captured in the days following the disaster.

Over 4,000 square miles of the Abruzzi were directly affected by the quake. But the promised reconstruction remains crippled by inertia and lack of direction. A year on, Italians are still awaiting a decree to set out the rules and direction of the reconstruction, and how it will be financed.

When I speak to friends and relations from L'Aquila, it becomes immediately clear that there is an information vacuum. Scattered in temporary accommodation in the periphery, in hotels on the coast and in a variety of other Italian cities, the citizens of L'Aquila have

lost their points of reference. Nobody appears to have an overview of how things really are, and, most importantly no-one knows what will become of their home city. One phrase that I keep hearing is "come facciamo?"—"what can we do?"

In an attempt to answer this open question, I have set up a Web site, comefacciamo.com, which allows the citizens of L'Aquila to upload their own photographs of the city from before and after the earthquake into an interactive map created using Google Maps. The aim is to create a detailed portrait of the city and of its urban fabric and to reveal the true extent of the damage it has suffered.

The site is already revealing a more complete picture of the damage in the city than any produced by official channels or media coverage. In its first few days online it has collected several hundred photographs taken by citizens of the town during brief visits to their homes in the sealed off "red zone" under the escort of the fire brigade.

An archive of photographs like this can bring important benefits for any disaster-hit area. A 3D model of the city would provide a

useful tool for planning what L'Aquila will be like in the future and

for communicating it in a clear and comprehensible manner. Creating a database of photographs of every building in the city could allow them to be modeled quickly and accurately using widely available modeling tools such as Google Sketchup and the Google Earth team's recently launched Building Maker. Hobbyists and professionals throughout the world simply adopt a building by making a model to upload into Google Earth.

Google has been pro-active in making post-earthquake satellite data available after similar catastrophes in the past. Its "Building Maker" Web site uses higher resolution aerial photographs that have been taken specifically for this process. Extending this approach by prioritizing cities such as L'Aquila, Port au Prince and the earthquake damaged cities of Chile would provide a real way for Google to put the rebuilding of their cities back in the hands of their people and a mechanism



to ensure that the large sums of money that are needed for this work are used transparently.

Strategy and coordination from above is clearly a prerequisite for any real reconstruction in any disaster-struck area and it is disappointing that one of the world's richest countries has yet to provide this framework for rebuilding one of its culturally richest areas. But as that process is clarified, and funds raised, making the reconstruction process as visible as possible from planning through until completion is most likely the best way to ensure that funds are spent effectively. Each and every building should have a presence on the Internet with information about its past, its present state and its future. Connecting the real world with the virtual is the best way of putting the destiny of the city back in the hands of its citizens.

One of my earliest experiences of Italy was when I stepped off the bus from Rome in front of L'Aquila's renaissance castle and began to walk down the main "corso." I was astonished by the amount of noise created by the throng of people enjoying their early evening "passeggiata." It was an incredible acoustic expression of the humanity of a city. Now, instead, the city center is silent, the echo of my pacing disturbed sporadically by the clank of scaffolding being erected to shore up damaged buildings or the rattle of a diesel engine as a fire brigade squad passes. To be a living city, L'Aquila needs its people. If the reconstruction and rehabilitation of the city center does not start soon, the risk is that the city will die.

Mr. Gunning is a London-based architect whose work includes 3D design for the Internet. His wife and children were born in L'Aquila.

With satellite data, aerial photographs and the right software we can create a crucial 3D model of the city.